



Original communication

Objective structured practical examination (OSPE) in Forensic Medicine: Students' point of view

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ABSTRACT

The purpose of this study was to assess the attitudes of undergraduate medical students towards the objective structured practical examination (OSPE) in Forensic Medicine, in a medical college in Nepal. Participants included 59 undergraduate medical students of the 7th semester. Findings indicated that the OSPE was an acceptable tool considering the conduct of practical examination in Forensic Medicine at the undergraduate level. The overall mean attitude score was towards the favourable side. Students strongly agreed that the OSPE tested a wide range of skills. They also strongly agreed that it was a good form of examination as well as a learning experience. The introduction of the OSPE replacing the conventional method of practical examination in Forensic Medicine is a step in the right direction taken to objectively assess undergraduate medical students.

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1. Introduction

The objective structured practical examination (OSPE) is a reliable and established practical examination system that uses a contextual format at multiple stations for the assessment of core competence and contemporary practical professional skills of medical students. The most important advantage of the OSPE is that the entire examination promotes transparency as it lays emphasis on objective assessment of students rather than subjective assessment.¹ Practical examinations are now structured objectively in many medical subjects across various countries including developing countries like Bangladesh, Pakistan and Nepal.^{2–4}

The importance of students' attitudes towards the training programme in undergraduate medical education including the conduct of examinations has been increasingly recognised in the recent past. The objective of the present study was to assess the attitudes of

medical students towards the OSPE in Forensic Medicine, in a medical college in Nepal, to evaluate its value as an acceptable tool.

2. Material and methods

A Likert-type scale containing 10 items⁵ was used to assess the attitudes of medical students at Manipal College of Medical Sciences, Pokhara, Nepal towards the OSPE in Forensic Medicine. In a Likert-type scale the respondents are asked how strongly they agree or disagree to each item or statement.⁶ Manipal College of Medical Sciences is affiliated to Kathmandu University, Nepal. At Kathmandu University clinical sciences are taught after the second year of the MBBS (bachelor of medicine and bachelor of surgery) curriculum. Forensic Medicine is taught in the 6th and 7th semesters of the MBBS curriculum. The survey was administered to the 7th semester undergraduate medical students in November 2006. These 7th semester students, the participants in the present study, were already exposed to the conventional method of practical examination pattern wherein they were assessed by having

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Table 1
Likert-type items used in the survey, with mean attitude scores.

Sl. No. Item	Mean attitude score ^a (Maximum: 5.0)
1. It tests a wide range of skills	4.22
2. Asking questions relating to procedural skills is a good idea	4.14
3. It is confusing to switch over from one exercise/station to another within a short period	3.07
4. It is physically taxing	3.36
5. It decreases element of luck	3.19
6. Check lists provide a fair and good means of evaluation	3.81
7. It is a reliable type of practical examination	4.03
8. There is not much difference between the OSPE and other forms of practical examination	3.59
9. I prefer the OSPE to the conventional method of examination	3.64
10. It is a good form of examination as well as a learning experience	4.22

^a Overall mean score: 3.73.

a set of different or uncommon scenarios without predefined marking when they were in the 6th semester. The present 6th semester students were not included in the study as they were not exposed to the OSPE.

The OSPE in Forensic Medicine was held for the entire medical class of 7th semester students. Of the 70 undergraduate medical students of the 7th semester, there was one absentee on the day the OSPE was conducted. The survey was carried out on the 3rd day following the OSPE when a lecture in Forensic Medicine was scheduled for the entire medical class in the same hall. The marks obtained by the students in the OSPE were made known to them a couple of days later. There were 10 absentees on the day of the survey in addition to the student who was absent on the day the OSPE was conducted. Students were required to indicate their agreement or otherwise with the 10 items by ticking one of the five alternative responses viz., strongly agree, agree, can't say, disagree, and strongly disagree. Students were instructed not to discuss amongst themselves, and return the completed response sheets. No incentives were offered to the students for participating in the survey. To ensure anonymity, the respondents' names were not collected. Completed response sheets were received after obtaining informed verbal consent from all the 59 students present on the day of the survey. There were no response sheets rejected because of inadequate information or inconsistent responses.

The responses to the Likert-type items were graded using a differential scaling procedure, from 1 (strongly agree) to 5 (strongly disagree) for negative items (statements numbered 3, 4 and 8 in Table 1), and from 1 (strongly disagree) to 5 (strongly agree) for positive items (statements numbered 1, 2, 5, 6, 7, 9 and 10 in Table 1). Mean attitude scores were calculated for each item as well as for the total scale. The Likert-type items were analysed such that scores <3 indicated disagreement, and scores >3 indicated agreement with a positive item or statement and vice versa for a negative item or statement. Scores equal to 3 indicated neutrality towards a statement.

3. Results

The overall mean attitude score and item wise attitude mean scores are shown in Table 1 with the items used for assessment. The overall mean attitude score of 3.73 was towards the favourable side. Item wise mean attitude scores indicated that the attitudes of the undergraduate medical students were favourable towards all the items. None of the mean attitude scores indicated disagreement with the positive items or statements provided in the survey.

4. Discussion

In the present study we assessed the attitudes of undergraduate medical students towards the OSPE in Forensic Medicine, in a medical college in Nepal. The OSPE is increasingly used to examine practical professional skills in both undergraduate and post-graduate medical students. As suggested by its name, the OSPE is intended to reduce subjectivity among examiners while assessing students by having a set of identical or common exercises or stations and predefined marking. Hence, it has been publicised as a good substitute for the conventional method of practical examination.⁷

Much attention is paid to the attitudes of medical students towards the training programme especially when the conventional method of teaching or the conventional pattern of examination is replaced by newer concepts. The present study indicated that the OSPE was an acceptable tool considering the conduct of practical examination in Forensic Medicine at the undergraduate level in a medical college in Nepal. The overall mean attitude score was towards the favourable side similar to another study related to pharmacology conducted in a medical college in India.⁵ In the present study, students strongly agreed that the OSPE tested a wide range of skills. They also strongly agreed that it was a good form of examination as well as a learning experience. Though the scores were marginally less for items 2 and 7 when compared to items 1 and 10, students agreed that it was a good idea to ask questions related to procedural skills and that the OSPE was a reliable type of practical examination.

The findings of the present study should be interpreted in the light of limitations. In the present questionnaire based survey, participants included a sample of undergraduate medical students. The present study is preliminary in nature as it involved only one class of students in one medical college in Nepal. Only 59 students of a particular class were included as participants and hence the results of this study cannot be generalised to other medical colleges in Nepal as well as other countries. Ten out of 69 students did not participate in the survey as they were absent on that particular day. Since all the respondents were informed of the issue of anonymity and no identifying information was included on the questionnaire, the identity of these ten students could not be ascertained in order to interview the non-responders on a separate day. Their views and perceptions about the OSPE were hence not explored which could have affected the findings of the present study. Another limitation of the present study is in relation to acquiescence bias that may have occurred as a result of a greater number of positively keyed statements in the Likert-type scale when compared to the negatively keyed items. Designing a Likert-type scale with an equal number of positive and negative statements could possibly obviate the problem of acquiescence bias.

In conclusion, the introduction of the OSPE replacing the conventional method of practical examination in Forensic Medicine is a step in the right direction taken to objectively assess undergraduate medical students. Students at the Manipal College of Medical Sciences in Pokhara, Nepal generally favoured the OSPE in Forensic Medicine. Perhaps the insights gained from our study will stimulate a change in the existing conventional pattern of practical examination in many other medical colleges and universities in Nepal and other developing countries where the OSPE pattern has not yet been implemented in Forensic Medicine.

Conflict of interest

None declared.

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Ethical approval

None declared.

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